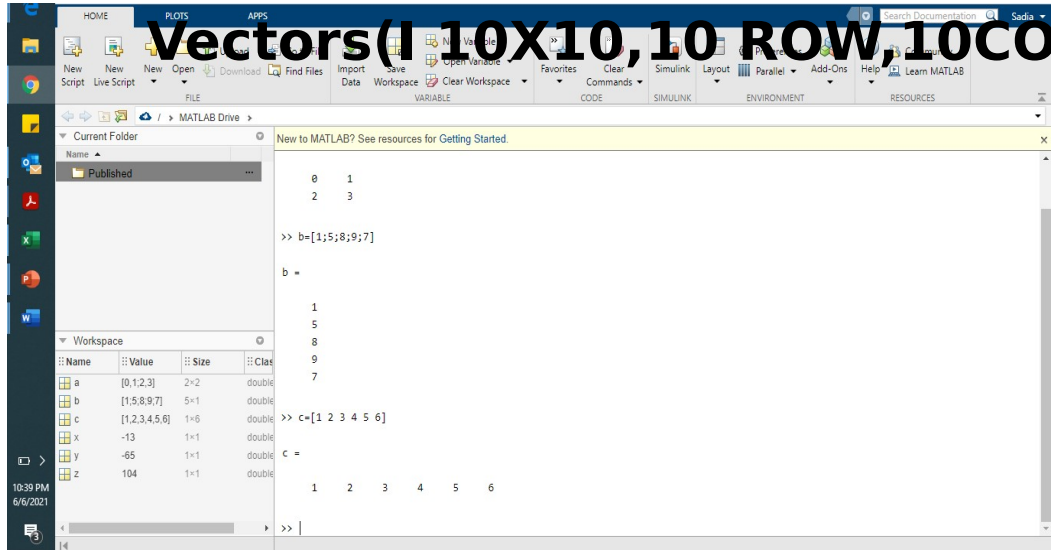


Sadia Ghulam Rasool (56)

Vectors(10X10,10 ROW,10COL)



A screenshot of the MATLAB interface. The Command Window shows the following code and output:

```
0 1
2 3

>> b=[1;5;8;9;7]

b =

     1
     5
     8
     9
     7

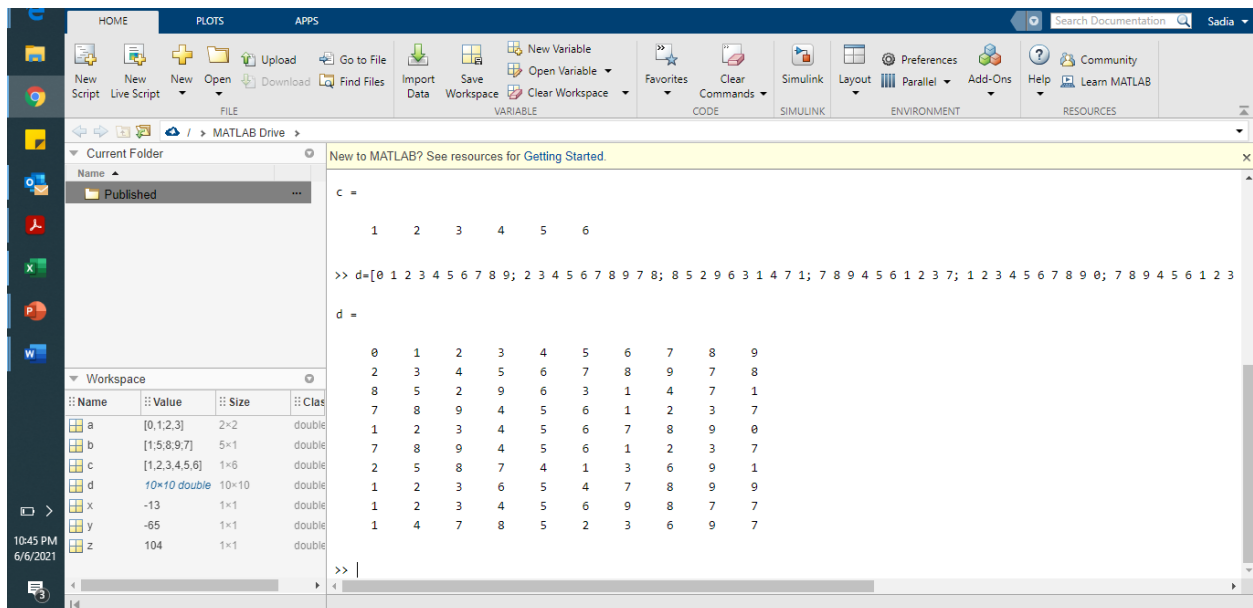
>> c=[1 2 3 4 5 6]

c =

     1     2     3     4     5     6
```

The Workspace window shows the following variables:

Name	Value	Size	Class
a	[0,1,2,3]	2x2	double
b	[1;5;8;9;7]	5x1	double
c	[1,2,3,4,5,6]	1x6	double
x	-13	1x1	double
y	-65	1x1	double
z	104	1x1	double



A screenshot of the MATLAB interface. The Command Window shows the following code and output:

```
c =

     1     2     3     4     5     6

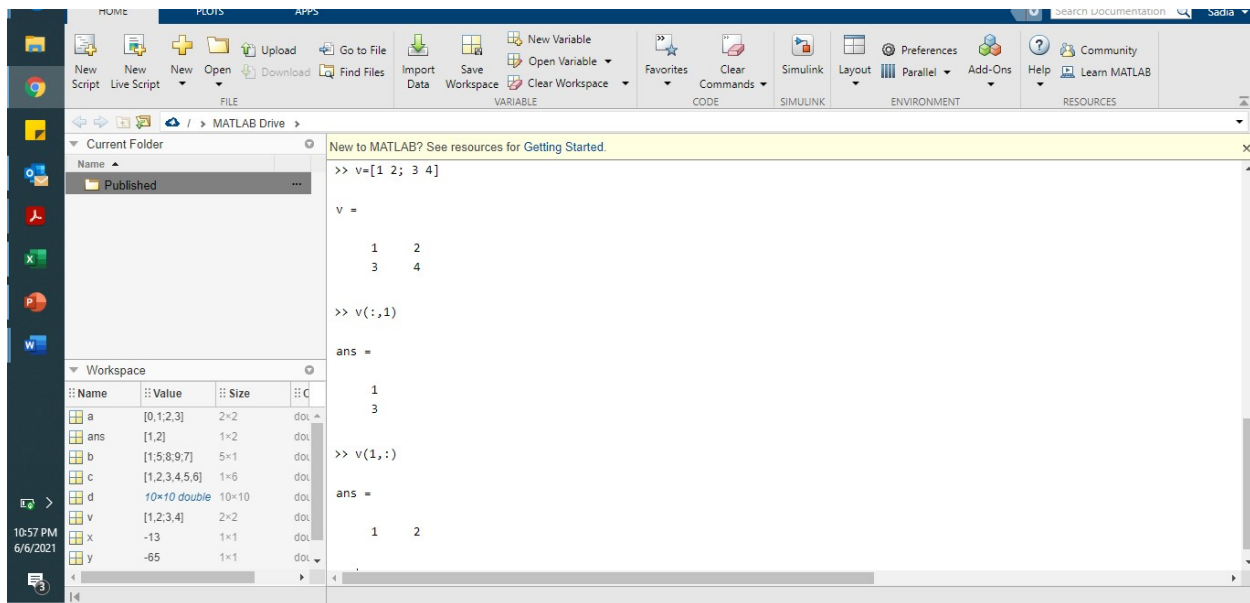
>> d=[0 1 2 3 4 5 6 7 8 9; 2 3 4 5 6 7 8 9 7 8; 8 5 2 9 6 3 1 4 7 1; 7 8 9 4 5 6 1 2 3 7; 1 2 3 4 5 6 7 8 9 0; 7 8 9 4 5 6 1 2 3
d =

     0     1     2     3     4     5     6     7     8     9
     2     3     4     5     6     7     8     9     7     8
     8     5     2     9     6     3     1     4     7     1
     7     8     9     4     5     6     1     2     3     7
     1     2     3     4     5     6     7     8     9     0
     7     8     9     4     5     6     1     2     3     7
     2     5     8     7     4     1     3     6     9     1
     1     2     3     6     5     4     7     8     9     9
     1     2     3     4     5     6     9     8     7     7
     1     4     7     8     5     2     3     6     9     7
```

The Workspace window shows the following variables:

Name	Value	Size	Class
a	[0,1,2,3]	2x2	double
b	[1;5;8;9;7]	5x1	double
c	[1,2,3,4,5,6]	1x6	double
d	10x10 double	10x10	double
x	-13	1x1	double
y	-65	1x1	double
z	104	1x1	double

**Vectors(10X10) :=null
V(ROW,COL)**



Vectors (I)

```
>> v = [ 1 3, sqrt(5)]
```

```
v =
```

```
    1.0000    3.0000    2.2361
```

```
>> length(v)
```

```
ans =
```

```
    3
```

Spaces can be vitally important:

```
>> v2 = [3+ 4 5]
```

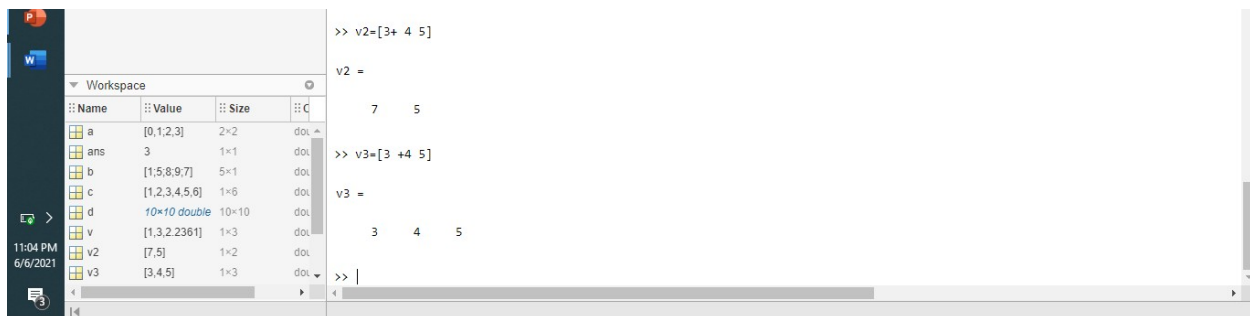
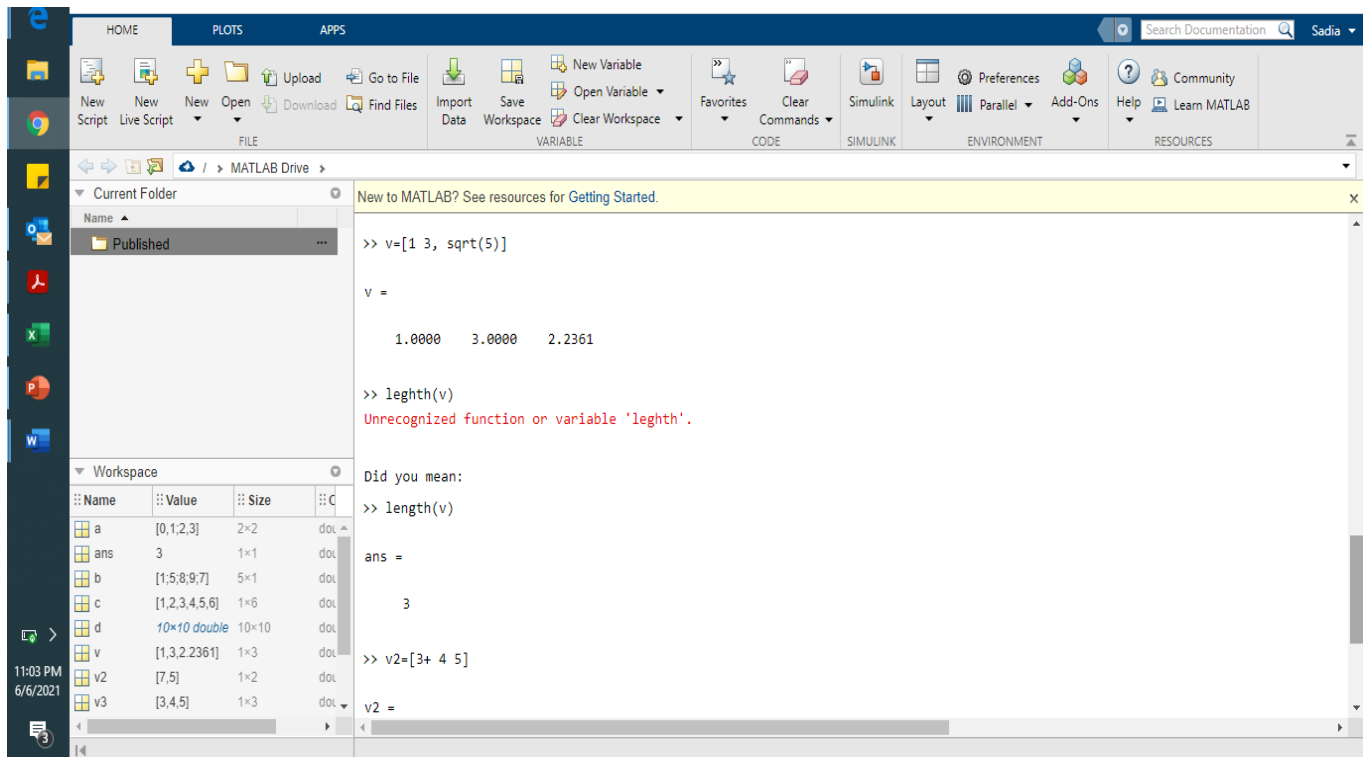
```
v2 =
```

```
    7    5
```

```
>> v3 = [3 +4 5]
```

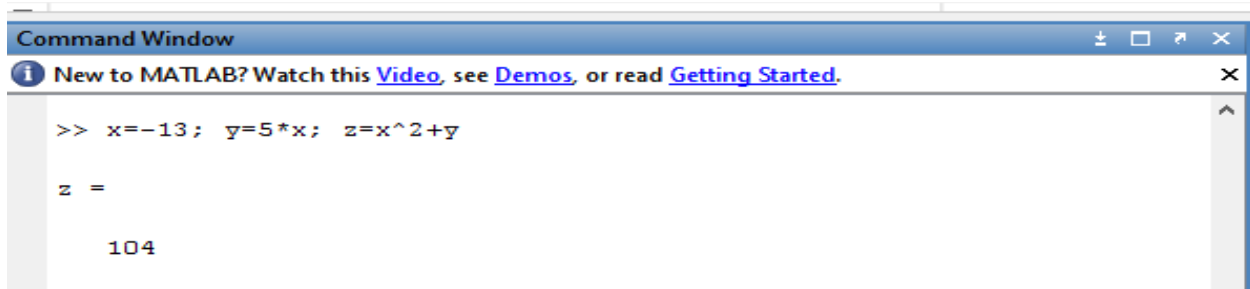
```
v3 =
```

```
    3    4    5
```



Equation Example(I)

- Note also we can place several statements on one line, separated by commas or semicolons.



Command Window

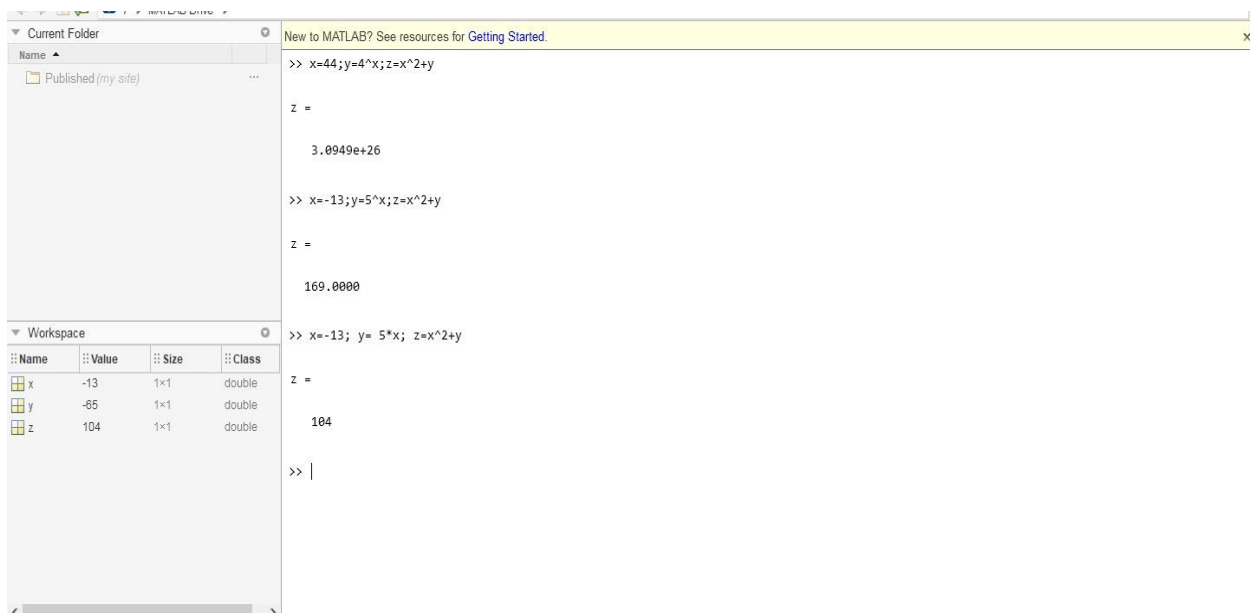
New to MATLAB? Watch this [Video](#), see [Demos](#), or read [Getting Started](#).

```
>> x=-13; y=5*x; z=x^2+y
```

z =

104

Equation Example(I)



Current Folder

Published (my site)

Workspace

Name	Value	Size	Class
x	-13	1x1	double
y	-65	1x1	double
z	104	1x1	double

Command Window

New to MATLAB? See resources for [Getting Started](#).

```
>> x=44;y=4^x;z=x^2+y
```

z =

3.0949e+26

```
>> x=-13;y=5^x;z=x^2+y
```

z =

169.0000

```
>> x=-13; y= 5*x; z=x^2+y
```

z =

104

```
>> |
```

Example(I)

- **Exercise:** In each case find the value of the expression in Matlab and explain precisely the order in which the calculation was performed.

i) -2^3+9

ii) $2/3*3$

iii) $3*2/3$

iv) $3*4-5^2*2-3$

v) $(2/3^2*5)*(3-4^3)^2$

vi) $3*(3*4-2*5^2-3)$

Current Folder: MATLAB Drive

Workspace:

Name	Value	Size	Class
a	[0,1,2,3]	2x2	double
ans	2	1x1	double
b	[1,5,8,9,7]	5x1	double
c	[1,2,3,4,5,6]	1x6	double
d	10x10 double	10x10	double
v	[1,3,2,2361]	1x3	double
v2	[7,5]	1x2	double
v3	[3,4,5]	1x3	double

```

>> -2^3+9
ans =
    1

>> 2/3*3
ans =
    2

>> 3*2/3
ans =
    2

>> (2/3^2*5)*(3-4^3)^2
ans =
    4.1344e+03
  
```

Current Folder: MATLAB Drive

Workspace:

Name	Value	Size	Class
a	[0,1,2,3]	2x2	double
ans	-123	1x1	double
b	[1,5,8,9,7]	5x1	double
c	[1,2,3,4,5,6]	1x6	double
d	10x10 double	10x10	double
v	[1,3,2,2361]	1x3	double
v2	[7,5]	1x2	double
v3	[3,4,5]	1x3	double

```

>> 3*4-5^2*2-3
ans =
   -41

>> 3*(3*4-2*5^2-3)
ans =
  -123
  
```

Built-In Functions(I)

• Run on MATLAB

```
>> x = 9;  
>> sqrt(x),exp(x),log(sqrt(x)),log10(x^2+6)  
ans =  
      3  
  
ans =  
 8.1031e+03  
  
ans =  
  1.0986  
  
ans =  
  1.9395
```

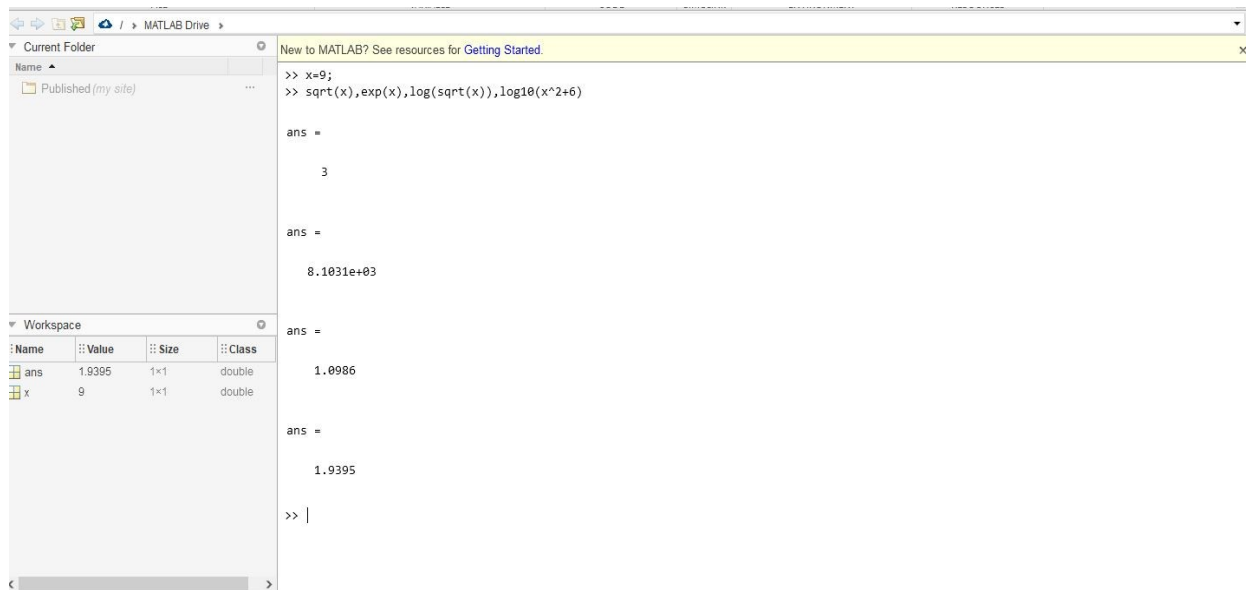


Figure 1